



## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

**Main Street Express**  
**FID# 17037, Incident# 200808169**  
Leaking Underground Storage Tank Program

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100 N. Senate Ave., Indianapolis, IN 46204

**Background:**

On August 20, 2008, a release was reported at the Main Street Express by the Carmel 911 Dispatch, based on a report of product in the sanitary/storm sewer lines from a neighboring property. An estimated 8,000 gallons of gasoline were reportedly released in one catastrophic event. Monitoring of explosive limits in the storm sewer and sanitary sewer revealed lower explosive levels (LELs) ranging from 15% to 75%. Sewer cameras identified the entry point where the gasoline was entering the storm sewer. Excavation to locate the leaking/failed equipment began once the product tanks were emptied. Several other departments visited the site including the Carmel Fire Department, Street Department and Public Works, Hamilton County Emergency Management Association and the Hamilton County Health Department.

The site is a convenience store/retail gasoline station on the eastern end of a strip mall located in an area of mixed residential and commercial usage. The site has been utilized as a gasoline station since 1990. Residential properties are located to the northeast, east and southeast of the site. Commercial properties are located to the west and south of the site, and vacant property is located immediately to the north of the site. The site utilized three, 10,000 gallon gasoline USTs and one, 4,000 gallon diesel underground storage tank (UST).

**Actions Taken:**

Emergency response activities included venting sanitary and storm sewer lines to reduce explosive vapor levels, use of absorbent booms at several key locations along the storm sewer to contain the fuel, plugging the storm drain to prevent further migration of material and removal of free product from utility lines and tank pit monitoring wells. Following the emergency response, interceptor trenches, recovery pits, and a slurry wall were established to prevent further migration of free product. Free product was removed from these trenches and pits periodically via vacuum truck. All utility locates were performed in the area. Air horns were brought in to vent the storm sewer. All USTs containing regular gasoline were emptied into 10,000 gallon "frac tanks". The owner hired a certified contractor to perform line and tank testing. A large section of the sanitary/storm sewer line, and surrounding contaminated fill material, was removed and replaced. Sandy fill material in an abandoned storm water line trench under the pump island was identified as a significant preferential pathway from the tank pit.

The functional element on an older model Red Jacket, mechanical, line leak detector failed and did not stop the flow of fuel because of the location of the failure. Consequently, product continued to flow through the fuel lines and into the sump from which it overflowing into the backfill around the tank. Customers and the attendant at the facility did not detect the leak because they were able to dispense fuel. It appears that the facility was poorly maintained for many years. Tightness testing had not been conducted for at least years. The only indication of a problem was the fact that the UST owner had the tanks filled with fuel, and thought the fuel provider shorted him product to the tune of 8,000 gallons. IDEM believes that before the catastrophic release, there were smaller leak(s) because of weathered fuel mixed with fresh fuel.

The existing canopy, pump island, and USTs were permanently closed and removed during a large over-excavation on September 8 and 9, 2008. Soil excavation activities during the emergency response activities and subsequent UST closure and source removal resulted in the removal and disposal of approximately 9,933 tons.

## **Environmental Impacts:**

The catastrophic release of product saturated soils and traveled across the site through the storm sewer leading to necessary replacement. Additionally, repairs to the sanitary line across Main Street were required. Ground water monitoring has been conducted since the release and concentrations are still being detected although the over excavation and treatments have produced a downward trend. The drinking water wells adjacent homes to the east were monitored to ensure that there were no risks to the community.

## **Next Steps:**

Since the release, an estimated 1,145 tons of additional impacted soil was removed within the utility corridor areas on both sides of Main Street. Enhanced fluid recovery (EFR) has been conducted twice a month and will continue for six months. Upon completion of the EFR and two additional quarterly ground water sampling events, the site will be evaluated to determine if a more aggressive remedial approach is needed. Quarterly ground water monitoring will continue following active remediation until on-site and off-site closure objectives are achieved.



## **More Information:**

### **Environmental Issues - Sampling, Gasoline Spills, and Cleanup**

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**IDEM Virtual File Cabinet** - To view public records for this site, visit IDEM's Virtual File Cabinet at [www.idem.IN.gov/6551.htm](http://www.idem.IN.gov/6551.htm), click on Document Search, enter the index as "FID", and enter the Value "17037".

**IDEM UST Branch Information** - For general information and links to additional resources, visit IDEM's Underground Storage Tanks Web page at [www.idem.IN.gov/4999.htm](http://www.idem.IN.gov/4999.htm) and IDEM's Leaking Underground Storage Tanks Web page at [www.idem.IN.gov/4997.htm](http://www.idem.IN.gov/4997.htm).